MON89034x1507xMON88017x59122maize

Organisation: Mans' Consultancy
Country: The Netherlands
Type: Consultant

a. Assessment:
3. Environmental risk assessment

The genes of the imported gmo mais will spread in the ecosystems of the importing country (here The Netherlands) anyhow. So please do not stop the ban on their import.

4. Conclusions and recommendations

The genes of the imported gmo mais will spread in the ecosystems of the importing country (here The Netherlands) anyhow. So please do not stop the ban on their import.

Organisation: Mans' Consultancy
Country: The Netherlands
Type: Consultant

a. Assessment:
Allergenicity

The actual (factual) mix of gmo-products in foods trouble the assessment of their health effects. Prevention of allergy should prevail over curation (curation = selling pharmacy).

Nutritional assessment

Non GMO foods / non gmo food producers can do all what's needed for human nutrition (quality & quantity). GMO foods are risky for human health and ecosystem's sustainable development.

4. Conclusions and recommendations

Do not favour (bow to) GMO industry as its spoils the rural farmers markets, human health and ecosystems diversity.

Organisation: The European GMO-free Citizens
Country: The Netherlands
Type: Non Profit Organisation

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a. Assessment:
Molecular characterisation

Study by Hoechst (Dr Arno Schulz) concerning the substrates of phosphinothricin acetyltransferase (PAT). _____ Amsterdam, 7 November 1999. Two study designs, producing opposite conclusions, namely 1. Charles J. Thompson, 1987: Characterization of the herbicide-resistance gene bar from Streptomyces hygroscopicus: 2. Dr Arno Schulz, 1993: L-Phosphinothricin N-Acetyltransferase - Biochemical Characterization – a report incorporated into Wehrmann 1996 (Schulz is co-author). The subject is the characterization of the enzyme phosphinotricin acetyltransferase (PAT), and in particular the specificity of the substrates. The first study concerns the reaction of phosphinothricin with acetyl co-enzyme A under the influence of PAT and compares this with a number of structural analogues of phosphinothricin (PPT). One of the analogues was L-glutamate. The products of the reaction were identified via a mass spectrogram and the equilibrium constants (affinity) determined. In addition to phosphinothricin (PPT) a number of structural analogues were tested to determine whether there was an acetylation reaction. L-glutamic acid was one of the substances investigated. Compared with PPT the affinity of most of the substances was low: one substance did not react at all. In this test, where a numerically reportable reaction occurred to an identified product (the detection threshold is not an issue here) there does not appear to be any reason to doubt that glutamic acid is a substrate of PAT.

The second study concerns the reaction of a large number of amino acids, including L-glutamic acid, which was also involved in the first study, in a reaction mix together with a 100% excess of PPT in relation to the acetyl source acetyl co-enzyme A and PAT. Products of the reaction were identified via chromatography. Even with a very large excess of L-amino acid no products of reaction with the amino acids were found. Only acetyl phosphinothricin was found. The authors concluded that PAT very specifically has only PPT as a substrate. The following criticisms can be made of this conclusion, which conflicts with that produced in the first study. (Incidentally, the first study is cited in the Bibliography to the second study): 1. No detection threshold was determined for acetylated L-glutamic acid. 2. The possibility of acetylated glutamic acid being a source of acetyl for the acetylation of PPT was ignored. This could have been tested in the study by adding acetylated glutamic acid to the reaction mix in a quantity above the detection threshold and examining whether this added quantity disappears during the reaction. Based on the results of the first study it could certainly be predicted to disappear!! 3. The study was conducted using a reaction mix in which a large excess of a competing substrate, PPT, was present. Observations with the pure amino acids were not

conducted. 4. There is no discussion whatsoever of the results of the first study, in particular as to why these were so different. 5. Essentially, the authors of the second study accuse the authors of the first study of fabrication, of fraud (the first study contains a wealth of numerical data; in the second there are no figures). In the second study this aspect is not developed satisfactorily. The background to the conclusion that PAT has only one substrate - PTT – is as follows: in herbicide-resistant (i.e. PPT-resistant) crops, PAT is present. In order to get products approved for the market the toxicity of this gene-product must be examined. Could this gene product react with the content of our GUT, e.g. with the – important – amino acid L-glutamic acid? It would cost a fortune in research to demonstrate that the dangers were minimal. For HOECHST, it seems that total denial is a better strategy! We believe that the conclusion drawn in the second study is completely unfounded and that the so-called "study" is unworthy of the name. It is an incompetent study and those persons who cite it need to be told about its incompetence. J. van der Meulen, L. Eijsten.
http://www.gentechvrij.nl/rvs9911.html

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b. Food Safety Assessment:
Toxicology

9 September 2010 Dr. Blaylock: Dangers of GMO Pesticides. Recent studies have found much higher concentrations of weed killers in these crops. This is important because weed killers and other pesticides are associated with a number of very deadly diseases, the main one being cancer. Weed killers, unlike many pesticides, extend to millions of homes, golf courses, and public facilities.
http://www.newsmaxhealth.com/dr_blaylock/GMO_pesticides/2010/09/09/348541.html?s=al&promo_code=AB57-1

Press Release, January 19, 2009 Coalition against Bayer Dangers Take Glufosinate off the Market immediately! Bayer´s herbicide among 22 most dangerous substances / Coalition also demands ban on glufosinate-resistant plants The Coalition against Bayer Dangers demands an immediate ban on the herbicide glufosinate and a suspension of all approvals of glufosinate-resistant crops. European Parliament members voted last week to ban pesticides classified as carcinogenic, mutagenic or toxic to reproduction. Permits for 22 substances, among them glufosinate, will not be renewed. Philipp Mimkes from the Coalition against Bayer Dangers: “Pesticides such as glufosinate that have been proven hazardous for operators, consumers and the environment must be removed from the market straight away. The EU ban on glufosinate must also have consequences for the approval of GM crops: no more permissions for glufosinate-resistant plants must be granted in the European Union!” Bayer CropScience, based in Germany, sells glufosinate under the trademarks Basta and Liberty. The substance is one of the best-selling herbicides in the world, with sales in 2007 of € 241 million. Bayer is currently expanding glufosinate production capacity in Germany. A European Food Safety Authority (EFSA) evaluation states that glufosinate poses a high risk to mammals. The substance is classified as reprotoxic, with laboratory experiments causing premature birth, intra-uterine death and abortions in rats. Japanese studies show that the substance can also hamper the development and activity of the human brain. The new EU regulation declares a ban on all CRM (carcinogenic, reprotoxic and mutagenic) pesticides from categories I and II. Glufosinate is classified as falling in reprotoxic category II. Already in 2006 Swedish authorities demanded an EU-wide ban. In the U.S. and Latin America the ingredient is widely used as a “super herbicide” for genetically modified crops, mainly on rapeseed, maize, soy bean, cotton, rice and sugar beet. Bayer requested EU approval for several glufosinate-resistant plants, among them a genetically altered rice (LL Rice 62). In 2006 a similar rice (LL Rice 601) that was never approved was found in food supplies across the world and led to

the largest GM contamination scandal so far. The Coalition against Bayer Dangers also demands that BAYER publishes all studies on pesticides and chemicals. Jan Pehrke from the Coalition said: “Industry must not be allowed to hide unwelcome information. Full public access to health and environmental data about substances that are released into the environment and used on our food is necessary.” For more information: • Letter to EU Ministers (2006): Act now for a ban of Bayer´s glufosinate • Reject Bayer's application to import genetically modified rice into the EU http://www.cbgnetwork.org/2785.html

GILLES-ERIC SERALINI

GMOs in Question(s) Gilles-Eric Seralini is a university lecturer and a researcher in molecular biology. He is also the author of a book entitled OGM, Le Vrai Débat (GM foods, the real debate). He was one of the first scientists to warn the public opinion against the dangers linked to Genetically Modified Organisms (GMOs). In this interview, he reminds us of a few basic facts about GMOs and tells us about the threat they represent.

What is your current research about ? My research focuses on the intimate functioning of a cell, on the dialogue between organs and organisms, and on molecular dialogues. More specifically, I am studying molecular endocrinology and the relations between hormones/cancers and pesticides. MORE: http://www.digital-athanor.com/PRISM_ESCAPE/article_usb312.html?id_article=18

Glyphosate Formulations Induce Apoptosis and Necrosis in Human Umbilical, Embryonic, and Placental Cells Nora Benachour and Gilles-Eric S ralini* University of Caen, Laboratory Estrogens and Reproduction, UPRES EA 2608, Institute of Biology, Caen 14032, France Chem. Res. Toxicol., 2009, 22 (1), pp 97–105 DOI: 10.1021/tx800218n Publication Date (Web): December 23, 2008 Copyright © 2008 American Chemical Society * To whom correspondence should be addressed. Tel: 33(0)2-31-56-56-84. Fax: 33(0)2-31-56-53-20. E-mail: criigen@unicaen.fr. Abstract http://pubs.acs.org/doi/abs/10.1021/tx800218n

A Swedish scientific team lead by Dr. Akerman published an epidemiological study disclosing that exposure to glyphosate is a risk factor for developing Non-Hodgkin lymphoma. http://www3.interscience.wiley.com/journal/120748798/abstract

Dr. Busbee - an American scientist - demonstrated alterations in estrogen-regulated genes after exposure to dilute concentrations of glyphosate.
http://het.sagepub.com/cgi/reprint/26/9/747 Eind december verbood de rechter in de stad Cordoba, Argentinië, het bespuiten van gewassen op een afstand van minder dan 1500 meter van de wijk Ituzaingó. Aanleiding was een sterke stijging van ernstige ziektes. Van de 5.000 inwoners lijden er 200 aan kanker. Bron.
http://www.gifsoja.nl/Gifsoja/verantwoord_files/gifsoja_nieuwsbrief.pdf ----------

Scientific evidence documenting the negative impacts of genetically modified (GM) foods on human and animal health and the environment

GM foods and crops were virtually excluded from the European Union in the 1990s by scientific objections and consumer concerns. But now they are once again being strongly promoted in Europe by the biotechnology industry, putting our health and environment at risk.

Scientists’ warnings proven correct When GM crops and foods were first introduced in the 1990s, scientists raised concerns that genetic modification was imprecise and unpredictable. They warned: • GM could create foods that are toxic, allergenic and less nutritious than their

non-GM counterparts • GM crops could damage vulnerable wild plant and animal populations and harm biodiversity • GM plants cannot be recalled, but as living organisms will multiply, passing any damaging traits from generation to generation • GM crops could cause irreversible changes to our food supply, with serious effects on the environment and human and animal health. All these concerns have since been proven correct. Nevertheless, the European Commission continues to approve GM crops for food and animal feed (more than 24 to date) and the GM industry continues to lobby to change GM regulations in its favour. As a result, European consumers are being exposed to the risks of genetically modified organisms (GMOs) without their knowledge or consent. MORE: http://www.gentechvrij.nl/plaatjesgen/wetenschappersnegentigond.pdf ---------- http://www.aaemonline.org/gmopost.html With the precautionary principle in mind, because GM foods have not been properly tested for human consumption, and because there is ample evidence of probable harm, the AAEM asks: Physicians to educate their patients, the medical community, and the public to avoid GM foods when possible and provide educational materials concerning GM foods and health risks. Physicians to consider the possible role of GM foods in the disease processes of the patients they treat and to document any changes in patient health when changing from GM food to non-GM food. Our members, the medical community, and the independent scientific community to gather case studies potentially related to GM food consumption and health effects, begin epidemiological research to investigate the role of GM foods on human health, and conduct safe methods of determining the effect of GM foods on human health. For a moratorium on GM food, implementation of immediate long term independent safety testing, and labeling of GM foods, which is necessary for the health and safety of consumers. (This statement was reviewed and approved by the Executive Committee of the American Academy of Environmental Medicine on May 8, 2009.) Submitted by Amy Dean, D.O. and Jennifer Armstrong, M.D.

Allergenicity

http://www.aaemonline.org/gmopost.html With the precautionary principle in mind, because GM foods have not been properly tested for human consumption, and because there is ample evidence of probable harm, the AAEM asks: Physicians to educate their patients, the medical community, and the public to avoid GM foods when possible and provide educational materials concerning GM foods and health risks. Physicians to consider the possible role of GM foods in the disease processes of the patients they treat and to document any changes in patient health when changing from GM food to non-GM food. Our members, the medical community, and the independent scientific community to gather case studies potentially related to GM food consumption and health effects, begin epidemiological research to investigate the role of GM foods on human health, and conduct safe methods of determining the effect of GM foods on human health. For a moratorium on GM food, implementation of immediate long term independent safety testing, and labeling of GM foods, which is necessary for the health and safety of consumers. (This statement was reviewed and approved by the Executive Committee of the American Academy of Environmental Medicine on May 8, 2009.) Submitted by Amy Dean, D.O. and Jennifer Armstrong, M.D.

Nutritional assessment

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3. Environmental risk assessment

AGRICULTURE | 07.06.2010 Genetically modified corn contaminates crops in seven German states Greenpeace says the corn must be destroyed A Greenpeace report says seven German states have had seed supplies contaminated by genetically modified corn. Losses for farmers could be in the millions of euros. http://www.dw-world.de/dw/article/0,,5657053,00.html

Concerning Bt (bacillus thuringiensis). You know of course what the effect is of the different Bt's? Do you know, for example, that Bt, Bc (bacillus cereus) and Ba (bacillus anthracis) are inter-related and can assume each other's properties? Nor does soil life stand still!) SEE http://www.gentechvrij.nl/rvs0110.html. As regards the genes of the construct incorporated into plants, scientists report that we must be CONCERNED ABOUT, for example, the toxin gene of Bacillus thuringiensis (Bt), which shows up in other bacteria, with unexpected consequences for the soil fauna balance. SEE http://www.gentechvrij.nl/rvs0005.html

---------- 1.GM maize 'has polluted rivers across the United States' 2.Insecticides from genetically modified corn present in adjacent streams --- --- 1.GM maize 'has polluted rivers across the United States' Steve Connor, Science Editor The Independent, 28 September 2010 http://www.independent.co.uk/environment/nature/gm-maize-has-polluted-rivers-across-the-united-states-2091300.html

An insecticide used in genetically modified (GM) crops grown extensively in the United States and other parts of the world has leached into the water of the surrounding environment.

The insecticide is the product of a bacterial gene inserted into GM maize and other cereal crops to protect them against insects such as the European corn borer beetle. Scientists have

detected the insecticide in a significant number of streams draining the great corn belt of the American mid-West.

The researchers detected the bacterial protein in the plant detritus that was washed off the corn fields into streams up to 500 metres away. They are not yet able to determine how significant this is in terms of the risk to either human health or the wider environment.

"Our research adds to the growing body of evidence that corn crop byproducts can be dispersed throughout a stream network, and that the compounds associated with genetically modified crops, such as insecticidal proteins, can enter nearby water bodies," said Emma Rosi-Marshall of the Cary Institute of Ecosystem Studies in Millbrook, New York.

GM crops are widely cultivated except in Britain and other parts of Europe. In 2009, more than 85 per cent of American corn crops were genetically modified to either repel pests or to be tolerant to herbicides used to kill weeds in a cultivated field.

The GM maize, or corn as it is called in the US, has a gene from the bacterium Bacillus thuriengensis (Bt) inserted into it to repel the corn borer beetle. The Bt gene produces a protein called Cry(12A)b which has insectidical properties.

The study, published in the journal Proceedings of the National Academy of Science, analysed 217 streams in Indiana. The scientists found 86 per cent of the sites contained corn leaves, husks, stalks or cereal cobs in their channels and 13 per cent contained detectable levels of the insectidical Cry(12A)b proteins.

"The tight linkage between corn fields and streams warrants further research into how corn byproducts, including Cr(12A)b insecticidal proteins, potentially impact non-target ecosystems, such as streams and wetlands," Dr Rosi-Marshall said.

All of the stream sites with detectable insecticidal proteins were located within 500 metres of a corn field. The ramifications are vast just in Iowa, Illinois, and Indiana, where about 90 per cent of the streams and rivers – some 159,000 miles of waterways – are also located within 500 metres of corn fields.

After corn crops are harvested, a common agricultural practice is to leave discarded plant material on the fields. This "no-till" form of agriculture minimises soil erosion, but it then also sets the stage for corn byproducts to enter nearby stream channels. --- --- 2.Insecticides from genetically modified corn present in adjacent streams

Stream ecosystems are tightly linked to agricultural fields and should be considered when adopting new agricultural technologies Public release date: 27-Sep-2010 http://www.eurekalert.org/pub_releases/2010-09/cioe-ifg092410.php

Contact: Lori M. Quillen QuillenL@caryinstitute.org 845-677-7600 x233 Cary Institute of Ecosystem Studies

[IMAGE: Recognizing the tight linkage between agricultural practices and adjacent aquatic ecosystems, like headwater streams, will help ensure the health and productivity of both. Click here for more information.]

In a paper published this week in the Proceedings of the National Academy of Sciences, Cary Institute aquatic ecologist Dr. Emma Rosi-Marshall and colleagues report that streams throughout the Midwestern Corn Belt are receiving insecticidal proteins that originate from

adjacent genetically modified crops. The protein enters streams through runoff and when corn leaves, stalks, and plant parts are washed into stream channels.

Genetically-modified plants are a mainstay of large-scale agriculture in the American Midwest, where corn is a dominant crop. In 2009, more than 85% of U.S. corn crops were genetically modified to repel pests and/or resist herbicide exposure. Corn engineered to release an insecticide that wards off the European corn borer, commonly referred to as Bt corn, comprised 63% of crops. The tissue of these plants has been modified to express insecticidal proteins, one of which is commonly known as Cry1Ab.

Following an assessment of 217 stream sites in Indiana, the paper's authors found dissolved Cry1Ab proteins from Bt corn present in stream water at nearly a quarter of the sites, including headwater streams. Eighty-six percent of the sampled sites contained corn leaves, husks, stalks, or cobs in their channels; at 13% of these sites corn byproducts contained detectable Cry1Ab proteins. The study was conducted six months after crop harvest, indicating that the insecticidal proteins in crop byproducts can persist in the landscape.

Using these data, U.S. Department of Agriculture land cover data, and GIS modeling, the authors found that all of the stream sites with detectable Cry1Ab insecticidal proteins were located within 500 meters of a corn field. Furthermore, given current agricultural land use patterns, 91% percent of the streams and rivers throughout Iowa, Illinois, and Indiana —some 159,000 miles of waterways—are also located within 500 meters of corn fields.

Rosi-Marshall comments, "Our research adds to the growing body of evidence that corn crop byproducts can be dispersed throughout a stream network, and that the compounds associated with genetically-modified crops, such as insecticidal proteins, can enter nearby water bodies."

After corn crops are harvested, a common agricultural practice is to leave discarded plant material on the fields. This "no-till" form of agriculture minimizes soil erosion, but it also sets the stage for corn byproducts to enter nearby stream channels.

Rosi-Marshall concludes, "The tight linkage between corn fields and streams warrants further research into how corn byproducts, including Cr1Ab insecticidal proteins, potentially impact non-target ecosystems, such as streams and wetlands." These corn byproducts may alter the health of freshwaters. Ultimately, streams that originate in the Corn Belt drain into the Mississippi River and the Great Lakes.

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Other authors on the PNAS paper included first-author Dr. Jennifer L. Tank (University of Notre Dame) and Drs. Todd V. Royer (Indiana University), Matthew R. Whiles (Southern Illinois University), Natalie A. Griffiths (University of Notre Dame), Therese C. Frauendorf (University of Notre Dame), and David J. Treering (Loyola University Chicago).

The Cary Institute of Ecosystem Studies is a private, not-for-profit environmental research and education organization in Millbrook, N.Y. For more than twenty-five years, Cary Institute scientists have been investigating the complex interactions that govern the natural world. Their objective findings lead to more effective policy decisions and increased environmental literacy. Focal areas include air and water pollution, climate change, invasive species, and the ecological dimensions of infectious disease. Learn more at www.caryinstitute.org

..... From Website: http://www.gmwatch.org

Transgenic crops' built-in pesticide found to be contaminating waterways Tom Laskawy GRIST, 29 September 2010 http://www.grist.org/article/food-2010-09-29-transgenic-crops-found-to-be-contaminating-waterways/

One of the main arguments offered in support of the wide use of genetically engineered crops is that they reduce overall pesticide use. This is particularly the case with Monsanto's "Bt" line of corn, soy, and cotton seeds, which are able to produce their own pesticide, a "natural" toxin from genes of the bacteria Bacillus thuringiensis. Ironically, commercial pesticide derived from Bt also happens to be one of the only chemical pesticides approved for use in organic agriculture, because it's produced through a biological process.

Biotechnology companies thus consider Bt seeds some of their most "eco-friendly" products. In theory, farmers don't have to spray pesticide as much or as often on these crops, and therefore pesticide runoff into waterways is much less of a concern. Well, after years of denial, Monsanto finally admitted recently that superbugs, or pests that have evolved to be able to eat the Bt crops, are a real and growing concern. And now, researchers at the University from Notre Dame have shown that the Bt from genetically engineered maize is polluting waterways in Indiana (the study area). They found Bt toxin in almost 25 percent of streams they tested, and all the streams that tested positive were within 1,500 feet from a cornfield.

Bt gets into streams and rivers by leaching out of crop debris left on fields through the now-ubiquitous industrial "no-till" farming technique, in which fields aren't plowed after harvest so as to prevent soil erosion. As a result, leaves and stalks get washed into streams through large-scale farms' irrigation canals: the Notre Dame scientists found such debris in almost 90 percent of streams near cornfields. And while the Bt levels detected weren't shockingly high, the tests were performed six months after harvest. The debris had been sitting in the streams and leaching Bt pesticide into the water for quite a while.

The fun part? No one has any idea yet of the effects of long-term, low-dose exposure to Bt on fish and wildlife. Perhaps it's high time somebody did a study on that since, as the researchers dryly observed, the presence of Bt toxin "may be a more common occurrence in watersheds draining maize-growing regions than previously recognized." Apparently.

So. Not only do genetically engineered crops have worse yields than conventionally bred crops, cost more, lead to pesticide resistance, contaminate other plants with their transgenes, possibly cause allergies and even organ damage, but now we also learn that the plants themselves are possibly poisonous to the environment.

These kinds of genetically engineered seeds keep being touted as the only way we're going to feed the world. Isn't it about time we started investing in less toxic alternatives?

..... Website: http://www.gmwatch.org

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4. Conclusions and recommendations

As GM crops (including also GM carnations and other GM flowers with altered colours) and the herbicides used on them pose so many dangers to human, animal and environmental health, serious disadvantages, which have been brought to light and continue to be brought to light over and over again by validated peer-reviewed research, we urge you not to place these

crops on the market and not to grow them in the fields. Preference should be given to organic farming and to local products, which have been grown safely for centuries.

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5. Others

For the consumer there are no advantages. Disadvantages are not mentioned. There are too many to mention. Thus, there are as yet only disadvantages for the consumer, such as adverse effects on health:

• Asthma, sensibilisation/eczema, Temple WA and Smith NA, Glyphosate herbicide poisoning experience in New Zealand, New Zealand Medical Journal, 105: 173-174, 1992. http://www.pan-uk.org/pestnews/Actives/glyphosate2.htm • Sperm cell motility is inhibited by glyphosate (Yousef et al., 1996). Health problems reported in validated scientific reports. http://www.pan-uk.org/pestnews/Actives/glyphosate2.htm

• Serious eye irritation, Adam A, Marzuki A, Abdul Rahman H and Abdul Aziz M, The oral and intratracheal toxicities of ROUNDUP and its components to rats, Veterinary and Human Toxicology, 39(3): 147-151, 1997. http://www.ecochem.com/ENN_glyphosate.html

Brain damage, (15. Fujii, T., T. Ohata, M. Horinaka, Alteration in the response to kainic acid in rats exposed to glufosinate-ammonium, a herbicide, during infantile period. Proc. of the Japan Acad. Series B-Physical and Biological Sciences, 1996, Vol. 72, No. 1, pp. 7-10.): http://www.pan-uk.org/pestnews/Actives/glufosin.htm

• Neural cell death (apoptosis), 16. Watanabe, T. Apoptosis induced by glufosinate ammonium in the neuroepithelium of developing mouse embryos in culture. Neuroscientific Letters, 1997, Vol. 222, No. 1, pp.17-20. http://www.pan-uk.org/pestnews/Actives/glufosin.htm • Convulsions. Glufosinate ammonium induces convulsion through N-methyl-D-aspartate receptors in mice, Nobuko Matsumura, Chizuko Takeuchi, Keiichi Hishikawa, Tomoko Fujii and Toshio Nakaki, Tokyo University School of Medicine, Japan, 2001. http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6T0G-42WX572-13&_user=10&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=08783f1097e5a826f6d64c591b14473c

• Adverse effects on sperm quality, http://www.reinwater.nl/docs/hormoonverst%20stoffen.pdf • Deformities, http://www.pan-uk.org/pestnews/Actives/glufosin.htm • Allergies reported, Williamson S, Aerial spraying devastates Colombian communities, Pesticides News, 53: 9, 2001http://www.ecochem.com/ENN_glyphosate.html

• 6 January 2009. Important study: “Formulations Induce Apoptosis and Necrosis in Human Umbilical, Embryonic, and Placental Cells”, depending on the formulation of the Roundup (in the Netherlands the total herbicide “Roundup” contains the active substance glyphosate together with trade-secret substances). This is a recently published study by Nora Benachour and Gilles-Eric Séralini, http://pubs.acs.org/doi/abs/10.1021/tx800218n. Read the press release here: http://www.gentechvrij.nl/plaatjesgen/PressRelease_Rup_0109.pdf

16 April 2009 ZapLog: Researchers sound the alarm over glyphosate in soya crops, BUENOS AIRES, 16 April 2009 (IPS) – Argentinean researchers have new evidence about the

harmfulness of glyphosate, the active component in the herbicide Roundup made by biotech giant Monsanto. http://zaplog.nl/zaplog/article/onderzoekers_slaan_alarm_over_glyfosaat_in_sojateelt

• Retired scientist Dr. Arpad Pusztai answers “Yes” to the following question in this interview: “Do you believe that scientific research will conclusively show that GM foods pose significant health risks?” http://www.organicconsumers.org/articles/article_18101.cfm

US Opposition to GMOs Gathers Momentum: Scientists and physicians in the heartland of genetic modification are alerting policy-makers and the public to the dangers of GM crops. http://www.i-sis.org.uk/US_Opposition_to_GMOs.php

But nothing on this is reported to the consumer.

American doctors are already prescribing their patients non-GM diets (PDF)! http://www.gentechvrij.nl/plaatjesgen/semspillingthebeans.pdf

After an appeal from the American Academy Of Environmental Medicine http://www.aaemonline.org/gmopost.html, Irish doctors have also called for a moratorium on GM foods (http://www.ideaireland.org/gmfood.htm), Irish Medical Times, 12 June 2009

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6. Labelling proposal

No GM crops, and therefore no labelling necessary!

Organisation: The European GMO-free Citizens
Country: The Netherlands
Type: Non Profit Organisation

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a. Assessment:
Molecular characterisation

See "others" and our previous comment, which you must include.

Comparative analysis (for compositional analysis and agronomic traits and GM phenotype)

See "others" and our previous comment, which you must include.

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b. Food Safety Assessment:
Toxicology

See "others" and our previous comment, which you must include.

Allergenicity

See "others" and our previous comment, which you must include.

Nutritional assessment

See "others" and our previous comment, which you must include.

Others

This Supermarket "Health Food" Killed These Baby Rats in Three Weeks Posted By Dr. Mercola | October 04 2010 | 13,182 views Article By Jeffrey Smith

Arpad Pusztai

Biologist Arpad Pusztai had more than 300 articles and 12 books to his credit and was the world's top expert in his field.

But when he accidentally discovered that genetically modified (GM) foods are dangerous, he became the biotech industry's bad-boy poster child, setting an example for other scientists thinking about blowing the whistle.

In the early 1990s, Dr. Pusztai was awarded a $3 million grant by the UK government to design the system for safety testing genetically modified organisms (GMOs). His team included more than 20 scientists working at three facilities, including the Rowett Institute in Aberdeen, Scotland, the top nutritional research lab in the UK, and his employer for the previous 35 years.

The results of Pusztai's work were supposed to become the required testing protocols for all of Europe. But when he fed supposedly harmless GM potatoes to rats, things didn't go as planned.

Within just 10 days, the animals developed potentially pre-cancerous cell growth, smaller brains, livers, and testicles, partially atrophied livers, and damaged immune systems. Moreover, the cause was almost certainly side effects from the process of genetic engineering itself. In other words, the GM foods on the market, which are created from the same process, might have similar affects on humans.

With permission from his director, Pusztai was interviewed on TV and expressed his concerns about GM foods. He became a hero at his institute -- for two days.

Then came the phone calls from the pro-GMO prime minister's office to the institute's director. The next morning, Pusztai was fired. He was silenced with threats of a lawsuit, his

team was dismantled, and the protocols never implemented. His Institute, the biotech industry, and the UK government, together launched a smear campaign to destroy Pusztai's reputation.

Eventually, an invitation to speak before Parliament lifted his gag order and his research was published in the prestigious Lancet. No similar in-depth studies have yet tested the GM foods eaten every day by Americans.

Irina Ermakova Irina Ermakova, a senior scientist at the Russian National Academy of Sciences, was shocked to discover that more than half of the baby rats in her experiment died within three weeks. She had fed the mothers GM soy flour purchased at a supermarket. The babies from mothers fed natural non-GMO soy, however, only suffered a 10% death rate. She repeated her experiment three times with similar results.

Dr. Ermakova reported her preliminary findings at a conference in October 2005, asking the scientific community to replicate her study. Instead, she was attacked and vilified. Her boss told her to stop doing anymore GM food research. Samples were stolen from her lab, and a paper was even set fire on her desk. One of her colleagues tried to comfort her by saying, "Maybe the GM soy will solve the overpopulation problem."

Of the mostly spurious criticisms leveled at Ermakova, one was significant enough to raise doubts about the cause of the deaths. She did not conduct a biochemical analysis of the feed. Without it, we don't know if some rogue toxin had contaminated the soy flour. But more recent events suggest that whatever caused the high infant mortality was not unique to her one bag of GM flour.

In November 2005, the supplier of rat food to the laboratory where Ermakova worked began using GM soy in the formulation. All the rats were now eating it. After two months, Ermakova asked other scientists about the infant mortality rate in their experiments. It had skyrocketed to over 55 percent.

It's been four years since these findings were reported. No one has yet repeated Ermakova's study, even though it would cost just a few thousand dollars.

Andrés Carrasco Embryologist Andrés Carrasco told a leading Buenos Aires newspaper about the results of his research into Roundup, the herbicide sold in conjunction with Monsanto's genetically engineered Roundup Ready crops.

Dr. Carrasco, who works in Argentina's Ministry of Science, said his studies of amphibians suggest that the herbicide could cause defects in the brain, intestines, and hearts of fetuses. Moreover, the amount of Roundup used on GM soy fields was as much as 1,500 times greater than that which created the defects.

Tragically, his research had been inspired by the experience of desperate peasant and indigenous communities who were suffering from exposure to toxic herbicides used on the GM soy fields throughout Argentina.

According to an article in Grain, the biotech industry "mounted an unprecedented attack on Carrasco, ridiculing his research and even issuing personal threats." In addition, four men arrived unannounced at his laboratory and were extremely aggressive, attempting to interrogate Carrasco and obtain details of his study. "It was a violent, disproportionate, dirty reaction," he said. "I hadn't even discovered anything new, only confirmed conclusions that others had reached."

Argentina's Association of Environmental Lawyers filed a petition calling for a ban on Roundup, and the Ministry of Defense banned GM soy from its fields.

Judy Carman Epidemiologist Judy Carman used to investigate outbreaks of disease for a state government in Australia. She knows that health problems associated with GM foods might be impossible to track or take decades to discover. Moreover, the superficial, short-term animal feeding studies usually do not evaluate "biochemistry, immunology, tissue pathology, gut function, liver function, and kidney function" and are too short to test for cancer or reproductive or child health.

Dr. Carman has critiqued the GMO approval process on behalf of the Public Health Association of Australia and speaks openly about her concerns. As a result, she is repeatedly attacked. Pro-GM scientists threatened disciplinary action through her Vice-Chancellor, and circulated a defamatory letter to government and university officials.

Carman was awarded a grant by the Western Australia government to conduct some of the few long-term animal feeding studies on GMOs. Apparently concerned about what she might find, GMO advocates wrote letters to the government demanding that the grant be withdrawn. One scientist tried to convince the Western Australia Agriculture minister that sufficient safety research had been conducted and he should therefore cancel the grant.

As his evidence, however, he presented a report summarizing only 60 GMO animal feeding studies -- an infinitesimal amount of research to justify exposing the entire population to GM foods.

A closer investigation, however, revealed that most of the 60 were not safety studies at all. They were production studies, measuring, for example, the animals' carcass weight. Only 9 contained data applicable to human health. And 6 of the 9 showed adverse effects in animals that ate GM feed!

Furthermore, there were several other studies with adverse findings that were mysteriously missing from the compilation. Carman points out that the report "does not support claims that GM crops are safe to eat. On the contrary, it provides evidence that GM crops may be harmful to health."

When the Western Government refused to withdraw the grant, opponents successfully interfered with Carman's relationship with the university where she was to do the research.

Terje Traavik Prominent virologist Terje Traavik presented preliminary data at a February 2004 meeting at the UN Biosafety Protocol Conference, showing that:

1.Filipinos living next to a GM cornfield developed serious symptoms while the corn was pollinating; 2.Genetic material inserted into GM crops transferred to rat organs after a single meal; and 3.Key safety assumptions about genetically engineered viruses were overturned, calling into question the safety of using these viruses in vaccines. The biotech industry mercilessly attacked Dr. Traavik. Their excuse? -- he presented unpublished work. But presenting preliminary data at professional conferences is a long tradition in science, something that the biotech industry itself relied on in 1999 to try to counter the evidence that butterflies were endangered by GM corn.

Ironically, three years after attacking Traavik, the same biotech proponents sharply criticized a peer-reviewed publication for not citing unpublished data that had been presented at a conference. The paper shows how the runoff of GM Bt corn into streams can kill the "caddis

fly," which may seriously upset marine ecosystems. The study set off a storm of attacks against its author, ecologist Emma Rosi-Marshall, which Nature described in a September 2009 article as a "hail of abuse."

Companies Prevent Studies on Their GM Crops When Ohio State University plant ecologist Allison Snow discovered problematic side effects in GM sunflowers, Pioneer Hi-Bred International and Dow AgroSciences blocked further research by withholding GM seeds and genes.

After Marc Lappé and Britt Bailey found significant reductions in cancer-fighting isoflavones in Monsanto's GM soybeans, the seed seller, Hartz, told them they could no longer provide samples.

Research by a plant geneticist at a leading US university was also thwarted when two companies refused him GM corn. In fact, almost no independent studies are conducted that might find problems. According to a scathing opinion piece in an August 2009 Scientific American,

"Agritech companies have given themselves veto power over the work of independent researchers ... Only studies that the seed companies have approved ever see the light of a peer-reviewed journal."

A group of 24 corn insect scientists protested this restriction in a letter submitted to the Environmental Protection Agency. They warned that the inability to access GM seeds from biotech companies means there can be no truly independent research on the critical questions. The scientists, of course, withheld their identities for fear of reprisals from the companies.

Restricted access is not limited to the US. When a Japanese scientist wanted to conduct animal feeding studies on the GM soybeans under review in Japan, both the government and the bean's maker DuPont refused to give him any samples. Hungarian Professor Bela Darvas discovered that Monsanto's GM corn hurt endangered species in his country. Monsanto immediately shut off his supplies.

Dr. Darvas later gave a speech on his preliminary findings and discovered that a false and incriminating report about his research was circulating. He traced it to a Monsanto public relations employee, who claimed it mysteriously appeared on her desk -- so she faxed it out.

GMO Contamination: Don't Ask and Definitely Don't Tell In 2005, a scientist had gathered seed samples from all over Turkey to evaluate the extent of contamination by GM varieties. According to the Turkish Daily News, just before her testing was complete, she was reassigned to another department and access to her lab was denied.

The unexpected transfer may have saved this Turkish scientist from an even worse fate, had she discovered and reported contamination.

Ask Ignacio Chapela, a microbial ecologist from UC Berkeley. In 2001, he discovered that the indigenous corn varieties in Mexico -- the source of the world's genetic diversity for corn—had become contaminated through cross pollination with GM varieties.

The government had a ban against GM corn to prevent just this possibility, but apparently US corn imported for food had been planted nonetheless.

Dr. Chapela submitted the finding to Nature, and as a courtesy that he later regretted, informed the Mexican government about the pending publication. He was called in to meet

with a furious Director of the Commission of Biosafety and GMOs. Chapela's confirmation of contamination would hinder introduction of GM corn. Therefore the government's top biotech man demanded that he withdraw his article. According to Chapela, the official intimidated and threatened him, even implying, "We know where your children go to school."

When a traumatized Chapela still did not back down, the Underminister for Agriculture later sent him a fax claiming that because of his scientific paper, Chapela would be held personally responsible for all damages caused to agriculture and to the economy in general.

The day Chapela's paper was published, Mary Murphy and Andura Smetacek began posting messages to a biotechnology listserve called AgBioWorld, distributed to more than 3,000 scientists. They falsely claimed that Chapela was biased, that his paper had not been peer-reviewed, that Chapela was "first and foremost an activist," and his research was published in collusion with environmentalists. Soon, hundreds of other messages appeared, repeating or embellishing the accusations. The listserve launched a petition and besieged Nature with a worldwide campaign demanding retraction.

UC Berkeley also received letters from all over the world trying to convince them not to grant Chapela tenure. He had overwhelming support by his college and department, but the international biotech lobby was too much. Chapela's tenure was denied. After he filed a lawsuit, the university eventually reversed its decision.

When investigators later analyzed the email characteristics sent by agitators Mary Murphy and Andura Smetacek, the two turned out not to be the average citizens they claimed. According to the Guardian, both were fabricated names used by a public relations firm that worked for Monsanto. Some of Smetacek's emails also had the internet protocol address of gatekeeper2.monsanto.com -- the server owned by Monsanto.

Science and Debate is Silenced The attacks on scientists have taken its toll. According to Dr. Chapela, there is a de facto ban on scientists "asking certain questions and finding certain results." He says, "It's very hard for us to publish in this field. People are scared." He told Nature that young people "are not going into this field precisely because they are discouraged by what they see."

New Zealand Parliament member Sue Kedgley told a Royal Commission in 2001: "Personally I have been contacted by telephone and e-mail by a number of scientists who have serious concerns about aspects of the research that is taking place ... and the increasingly close ties that are developing between science and commerce, but who are convinced that if they express these fears publicly ... or even if they asked the awkward and difficult questions, they will be eased out of their institution."

University of Minnesota biologist Phil Regal testified before the same Commission, "I think the people who boost genetic engineering are going to have to do a mea culpa and ask for forgiveness, like the Pope did on the inquisition." Sue Kedgley has a different idea. She recommends we "set up human clinical trials using volunteers of genetically engineered scientists and their families, because I think they are so convinced of the safety of the products that they are creating and I'm sure they would very readily volunteer to become part of a human clinical trial."

To learn more about the health dangers of GMOs, and what you can do to help end the genetic engineering of our food supply, visit www.ResponsibleTechnology.org.

To learn how to choose healthier non-GMO brands, visit www.NonGMOShoppingGuide.com.

About the Author

International bestselling author and filmmaker Jeffrey Smith is the leading spokesperson on the health dangers of genetically modified (GM) foods. His first book, Seeds of Deception, is the world's bestselling and #1 rated book on the topic. His second, Genetic Roulette: The Documented Health Risks of Genetically Engineered Foods, provides overwhelming evidence that GMOs are unsafe and should never have been introduced.

Mr. Smith is the executive director of the Institute for Responsible Technology, whose Campaign for Healthier Eating in America is designed to create the tipping point of consumer rejection of GMOs, forcing them out of our food supply. Sources: Chickens Not Fooled by GM Crops

Could Monsanto Be Responsible for One Indian Farmer's Death Every Thirty Minutes?

Doctors Warn: Avoid Genetically Modified Food

From: http://articles.mercola.com/sites/articles/archive/2010/10/04/watch-out-there-are-more-problems-with-genetically-modified-foods-than-youre-allowed-to-know.aspx

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3. Environmental risk assessment

See "others" and our previous comment, which you must include.

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4. Conclusions and recommendations

GM food is to be removed inmediately from all shelves and all soils, because of the great danger they are to our planet,health,and the health of the animals that live on this earth.

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5. Others

See "others" and our previous comment, which you must include.

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6. Labelling proposal

See "others" and our previous comment, which you must include.

Organisation: Individual
Country: Portugal
Type: Individual

a. Assessment:
Molecular characterisation

b. Food Safety Assessment:
Toxicology

Total.

Allergenicity

Total.

3. Environmental risk assessment

Disastres.

4. Conclusions and recommendations

STOP the madness.

5. Others

LETS MAKE EUROPE A GM FREE ZONE.

ENOUGH IS ENOUGH.

1. If I buy a GM product or one with a GM component, it is because there is nothing to indicate that it is GM. Because otherwise I will not buy it. Even if it is for free.

2. GM is nothing more than genetic pollution. There is no way to clean it up. There is no way back. It contaminates the adjacent fields. That is the end of the original DNA; Look at pollution from toxic sludge (mercury) or petrol in the Gulf of Mexico. That does not continue to kill and generate genetic mutations for centuries. And then one day Nature manages to

recover. That is not the case with GMOs. Once the contamination takes place it lasts FOREVER;

3. Do you want to put an end to hunger in the world? It's easy. Stop backing corrupt governments. Fund measures to distribute foodstuffs and to ensure countries' industrial development.

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6. Labelling proposal

PLEASE label. GM products and all those who have GM products in theis composition.

If it´s not too much to ask.

In Portugal GM product labelling is non-existent. Their are aparently NO GM products beening sold to the general public. Are you kidding, me ?

Organisation: Musician
Country: The Netherlands
Type: Others...

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a. Assessment:
3. Environmental risk assessment

GT riscs There is considerable scientific doubt about the long term effects of genetically engineered crops and food on environment and health. Moreover, there is increasing evidence for the ecological and economic problems of commercially grown GM crops. Through genetic manipulation, the reliance on chemical pesticides in agriculture increased. Another negative effect is that the population of naturally crossed variants is reduced. This is a new form of genetic pollution, whose effects are irreversible. Outcrossing and mixing after harvest can cause substantial damage to biological and other producers who want to remain GM-free.

Farmers dependance Thousands of years, farmers have saved seeds themselves and selected for reuse. The suppliers of engineered seeds end this independance by prohibiting the reuse of GM crops. This is because it is possible to patent engineered seeds. Seeds must be bought every year. Farmers are thus increasingly dependent on large companies that produce and supply transgenic seeds. This is a major problem for farmers in developing countries and is also a threat to EU farmers.

World food problem The claim that gentechnology could eliminate world hunger is not true. Hunger is the result of poor food distribution and limited access to productive resources like land and seeds for small farmers. Hunger is not caused by the lack of food world wide.

Gene technology applied in more and more products Much of the products in the supermarkets contain genetically modified soya and/or maize.And this while 70% of Europe's population does not want to eat GM food! A large proportion of the imported feed (soy and corn protein) for cows, pigs and chickens is genetically engineered.

EU labeling rules According to the EU labeling law, effected April 18, 2004, any GM ingredients must be on the label. Manufacturers must find out exactly whether there are inputs from a genetically modified organism origin in their products. Unfortunately the EU implies a "threshold" of genetic pollution: up to 0.9% of GM ingredients may exist in a product . If a manufacturer demonstrates that such contamination is unintentional, he is not to liable.

Livestock feed Large quantities of GM cattle feed from Argentina and the U.S. end up in the EU food chain. In 2004 the application of new EU legislation for the separation and labeling of livestock feed started. But that only applies to trade between livestock feed companies, food manufacturers and supermarkets. Farmers can choose to feed their cattle GM crops. Purchasers of eggs, milk or meat can figure out which animals are fed with GM feed. But consumers cannot see on the label of the product whether or not the parts of the animals that were used in the product were animals that have been fed with GM feed.

For The Netherlands: No protection The Netherlands has very little protective legislation in this area. According to an EU directive, the national government has to take measures to guarantee coexistence, therefore, to keep the pieces of land that are cultivated in an organic and conventional manner separated from the pieces of land that are cultivated with GM crops. In addition, there according to the directive) should be a public registry with all the fields in which genetic engineering is used in order to allow producers to take precautions. The Dutch government has not yet taken action. Finally, there is no law that guarantees damage claims in case of contamination of crops borne by GM companies that the produced and introduced the GM crops on the market.

The World Trade Organization (WTO) America, Canada and Argentina want to sell their genetically modified products to Europe and find within the EU trade restrictive measures. Therefore, they served a complaint with the WTO. If the WTO agrees with these countries, Europe must change its policies or pay large fines. Thus the WTO decides what precautions the EU and the rest of the world have to take and what we eat! This' WTO lawsuit "has worldwide influence. If the EU will lose it will be impossible for developing countries to refuse GM products. Because they have no money to pay large fines.

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4. Conclusions and recommendations

Short term policy (one to five years): 1a: No production of GM food or live stock feed GM products produced within the EU for consumers. Prohibition of imported GM products or GM "infected" products for the EU. 1b: As much labtest as needed to determine with up to 100 % security the positive and/or negative effects concerning the "yes or no" introduction of GM feed and food, or parts of these products that are proven healthy and beneficionary for plants, humans and animals. The EU withstands the GM food corporations lobby group pressure within WTO and EU to continue legalising GM food into the feed and food market. 70% of the EU population does not want GM feed and food. So support of the EU people is more than enough present.

Organisation: The European GMO-free Citizens
Country: The Netherlands
Type: Others...

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a. Assessment:
Molecular characterisation

Study by Hoechst (Dr Arno Schulz) concerning the substrates of phosphinothricin acetyltransferase (PAT). _____ Amsterdam, 7 November 1999. Two study designs, producing opposite conclusions, namely 1. Charles J. Thompson, 1987: Characterization of the herbicide-resistance gene bar from Streptomyces hygroscopicus: 2. Dr Arno Schulz, 1993: L-Phosphinothricin N-Acetyltransferase - Biochemical Characterization – a report incorporated into Wehrmann 1996 (Schulz is co-author). The subject is the characterization of the enzyme phosphinotricin acetyltransferase (PAT), and in particular the specificity of the substrates. The first study concerns the reaction of phosphinothricin with acetyl co-enzyme A under the influence of PAT and compares this with a number of structural analogues of phosphinothricin (PPT). One of the analogues was L-glutamate. The products of the reaction were identified via a mass spectrogram and the equilibrium constants (affinity) determined. In addition to phosphinothricin (PPT) a number of structural analogues were tested to determine whether there was an acetylation reaction. L-glutamic acid was one of the substances investigated. Compared with PPT the affinity of most of the substances was low: one substance did not react at all. In this test, where a numerically reportable reaction occurred to an identified product (the detection threshold is not an issue here) there does not appear to be any reason to doubt that glutamic acid is a substrate of PAT.

The second study concerns the reaction of a large number of amino acids, including L-glutamic acid, which was also involved in the first study, in a reaction mix together with a 100% excess of PPT in relation to the acetyl source acetyl co-enzyme A and PAT. Products of the reaction were identified via chromatography. Even with a very large excess of L-amino acid no products of reaction with the amino acids were found. Only acetyl phosphinothricin was found. The authors concluded that PAT very specifically has only PPT as a substrate. The following criticisms can be made of this conclusion, which conflicts with that produced in the first study. (Incidentally, the first study is cited in the Bibliography to the second study): 1. No detection threshold was determined for acetylated L-glutamic acid. 2. The possibility of acetylated glutamic acid being a source of acetyl for the acetylation of PPT was ignored. This could have been tested in the study by adding acetylated glutamic acid to the reaction mix in a quantity above the detection threshold and examining whether this added quantity disappears during the reaction. Based on the results of the first study it could certainly be predicted to disappear!! 3. The study was conducted using a reaction mix in which a large excess of a competing substrate, PPT, was present. Observations with the pure amino acids were not conducted. 4. There is no discussion whatsoever of the results of the first study, in particular as to why these were so different. 5. Essentially, the authors of the second study accuse the authors of the first study of fabrication, of fraud (the first study contains a wealth of numerical data; in the second there are no figures). In the second study this aspect is not developed satisfactorily. The background to the conclusion that PAT has only one substrate - PTT – is as follows: in herbicide-resistant (i.e. PPT-resistant) crops, PAT is present. In order to get products approved for the market the toxicity of this gene-product must be examined. Could this gene product react with the content of our GUT, e.g. with the – important – amino acid L-

glutamic acid? It would cost a fortune in research to demonstrate that the dangers were minimal. For HOECHST, it seems that total denial is a better strategy! We believe that the conclusion drawn in the second study is completely unfounded and that the so-called "study" is unworthy of the name. It is an incompetent study and those persons who cite it need to be told about its incompetence. J. van der Meulen, L. Eijsten.
http://www.gentechvrij.nl/rvs9911.html

Comparative analysis (for compositional analysis and agronomic traits and GM phenotype)

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b. Food Safety Assessment:
Toxicology

From Bio Journal - September 2004

Trend: GMO compatible herbicides may affect children's brains

It has been suggested in Japan that herbicides which are applied to herbicide resistant GM crops can have an effect on children's brains.

Yoichiro Kuroda at the Tokyo Metropolitan Institute for Neuroscience (TMIN) reported (Science Journal KAGAKU Vol. 74, Aug. 2004) that agrichemicals can have effects on children's brains by mentioning the recent case of a murder by children. He also referred to an experimental study on animals conducted by Tomoko Fujii et al. at Teikyo University 10 years ago.

According to the study, rats that were administered "glufosinate", which is GM compatible herbicide's main component, showed increasing aggressive behaviour, such as biting others. Baby rats born from mother rats which were administered the glufosinate showed abnormal behaviour, such as damaging tails. Baby female rats that normally never bite, but who were born from mother rats which were administered high doses of glufosinate, became extremely aggressive, and started to bite each other until finally one of the fighting pair was killed.

Kuroda pointed out that although glufosinate is the main component of the herbicide "Basta," the main component of the herbicide "Roundup," called "glyphosate," has a similar chemical structure. Since GM crops have come onto the market, a broad range of food crops with these agrochemical residues has flooded the distribution system. Kuroda warned that, "People who are concerned about children's health should be careful about these agrochemicals."
http://www5d.biglobe.ne.jp/~cbic/english/2004/journal0409.html

Scientists warn of serious risks associated with the widespread use of glyphosate

The researcher Don Huber, recently retired from Purdue University, has said that, according to his research, the widespread use of glysophate has a negative impact on the soil, plants and animal and human health. He found a consistent increase in the presence of a particular kind of fungus on glyphosate-treated wheat. Glyphosate was also found to lead to a reduction in

manganese, an essential part of a plant's defence against disease and environmental pressures. "Glyphosate can tie up nutrients such as manganese, copper, potassium, iron, magnesium, calcium and zinc in plants so that they can no longer be used. It kills weeds by tying up certain essential nutrients for the plants' defence, killing them not directly but by disabling their immunity to pathogens in the soil. It weakens the plant to such an extent that it becomes susceptible to dangerous soil fungi." See www.gentechvrij.nl/glyphosate.html.

18/12/2004 COMMON PESTICIDE CAUSES AGGRESSION & BRAIN DAMAGE

Glufosinate, a pesticide used widely in the U.S. and whose residues have been found in the food and water supply, has been verified to cause brain and hormonal damage. Japanese government studies have confirmed previous research that glufosinate sets off violent behavior in lab animals. Male rats exposed to the chemical aggressively attack each other, while female rats remain peaceful. But female offspring of rats previously exposed to the pesticide "became aggressive and started to bite each other, in some cases until one died." said Yoichiro Kuroda, principle investigator of the study, adding, "That report sent a chill through me." Glufosinate, which is used as an herbicide on several varieties of genetically modified canola and corn, is also linked to neurological defects that increase the rate of hyperactivity and decrease IQs. The Japan Times, 7 December 2004 By YUMI WIJERS-HASEGAWA, Staff writer

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Allergenicity

See the Starlink affair http://www.foodallergyangel.com/documents/GMO/StarlinkReport.pdf

See the poisoning of a woman from Amsterdam by glufosinate ammonium. Her story (abridged, for the full story see http://www.gentechvrij.nl/rvs0110.html): a few years ago, my body absorbed some propandiol, ethylene glycol and alkyl ether sulfate etc. through the drift of Finale SL14 – similar to Basta or Liberty – during a period of warm weather. The damage is permanent. Whole swathes of the population could also be hit, so it is in the general interest to ban these substances. However, the public is unaware of these facts.

I am suspicious of arable crops which are genetically modified to be pesticide-resistant.

The companies introducing GM crops which are resistant against substances used in pesticides, are responsible for damage to health. The largest company in this field in the Netherlands has told me that it does not know the substances used in the herbicides against which they make their plants resistant. It's a matter for Hoechst, apparently. But Hoechst just passes the buck back.

Anyone introducing a new strain is responsible for its consequences. Even Monsanto claims that it bears absolutely no responsibility for the potential consequences of using its products in crop production. And that’s ok?

A little aside: Foray 48B, a Bt-insecticide,– contains methylparaben as an "active ingredient". This was listed by the EPA back in the day as an active ingredient. This stuff can also be

found in ointments, etc., which you spread on your skin to prevent chapping. Can anyone explain that to me? ----------

What do allergens taste like?

The advertisement in various newspapers (including the NRC 10/10/01) about your senses really took the biscuit! I would never have thought that the government would take supernatural advice from a medium to determine how safe our food is! Neither did I imagine that you would play on the feelings of the ignorant majority. A very weak and irresponsible way to behave.

Is your sixth sense supposed to guarantee our safety? The policymakers are constantly changing. What does your "guarantee" actually mean? Is it some kind of contract, with government guaranteeing your recovery to health if your sixth sense runs amuck? Or are there some kind of financial arrangements? For example, in the case of a lifelong allergy triggered by sensitivity to herbicides (e.g. Liberty/Basta/Finale, or by a substance in a pesticide. I could go on).

What happens if we

1. consume Bt-maize sprayed with Btk delta endotoxin, or

2. have inhalation problems as a result of the use of Bt spray in organic agriculture?

Bt (thuringiensis), Bc (cereus), and Ba (Anthracis) are closely related and I have read that the transfer of genetic material has occurred. The chances of this happening are no doubt very small but where does the anthrax come from? Since time immemorial, there have been anthrax spores here and there in the soil. Vondel even wrote a poem about it. Worms and mice can bring it to the surface.

What about the pH value in insects' intestinal tract? At a pH of more than 7, insects fall victim to delta-endotoxins. Differences in pH in various insects have an impact on the effectiveness of toxins. (A certain toxin kills a specific group of insects, according to what I've read).

I have also read that the excessive use of pesticides is making certain insects resistant. That is something else. Has enough research been done on this?

"Each of the more than 800 strains of Bacillus thuringiensis may exhibit toxicity to insects, rodents and humans". The Bt-sprays in GM maize apparently cause their own problems in the long run, each in their own way. We do not yet know what may happen tomorrow, as a result of a multiplicity of interactions.

Bt. israelensis has been shown to kill rats if injected into the abdomen and the brain, and "the irritancy of Bt.i. to eyes depends on the physical characteristics of the formulation".

Delta-endotoxins from Bt. israelensis "also caused destruction of rat, mouse, sheep, horse and human blood cells" and so on.

Regarding Bt. Kurstaki, users have reported all sorts of trouble in the event of contact with the face. Another interesting case concerns the scientist who accidently injected himself with Bt. israelensis "and another kind of bacteria commonly found on human skin".

It is also nice that the Oregon Health Division suggested before a Bt.k. spray program that "individuals with ... physician-diagnosed causes of severe immune disorders may consider leaving the area during the actual spraying".

And "The 1991 Material Safety Data Sheet for Foray 48B" states that "Repeated exposure via inhalation can result in sensitization and allergic response in hypersensitive individuals."

Enough misery for the time being. I'll just leave you with the fact that Bt.i. formulations are especially unhealthy because "inerts" in the product deplete the dissolved oxygen in water. The Bt.i formulation Teknar was acutely toxic to brook trout fry, probably because of xylene used as "inert" in the product.

There is so much in the literature about Bt and other pesticides, the formulations and their effects, that I already have a nasty taste in my mouth: the taste of allergies, sickness and death.

Yours sincerely,

L. Eijsten. (This lady has since died. I gained her permission to use her papers.) http://www.gentechvrij.nl/rvs0107.html ----------

Concerning the article: Farmers turning against GM maize.

I recently read your article in the Volkskrant of 10 March. I consider it necessary to write to you to clarify this matter.

A comment. If there really are too many weeds (in a field of maize), then that in itself means you need less herbicide, because of the umbrella effect of the maize with its larger leaves.

Aventis goes on about the impact of Liberty on the surrounding flora and fauna but conveniently forgets the impact on humans, who may be affected as a result of drift (and residues of the herbicide in the food chain).

It is inaccurate to talk about Liberty as an agent in itself. Rather, the active agent in Liberty is GLA technical (phosphinothricin or glufosinate ammonium), a product – like Roundup – developed from a phosphorous compound.

This GLA technical is the active ingredient in other herbicides made by Hoechst, including Basta, Finale, Finale SL (SL14, amongst others). All these herbicides have the active agent GLA technical in common.

Various "auxiliary materials" are added to the active agents, such as propandiol, fungicide and – what is really serious – alkyl ether sulfate (AES), which has cardiovascular effects (vasodilating or vasoconstrictive - depending on the dose) and affects blood pressure, etc. The overall product (product as sold) is known as the formulation. GLA technical is often used in laboratory tests.

Basta, for example, contains 30% AES. And that's a fair amount!

Around half a year ago, my attention was drawn to the fact that the *Bestrijdingsmiddelenwet* (Pesticides Act) refers only to "active agents" and their breakdown products, and not other substances in the product, the formulation.

(For the record: I have only once seen "auxiliary materials" referred to in the Pesticides Act).

I have asked for the Act to be supplemented with the following phrase: "additives, for example surfactants and solvents, jointly known as 'the formulation'".

In early April, all this is being dealt with by the Standing Parliamentary Committee for Agriculture, Nature and Food, and I have tried to obtain information about additives to the active agent (also applies to other herbicides), but information about this is reserved for the CTB (*College Toelating Bestrijdingsmiddelen* – Pesticide Authorisation Committee), and guidelines prevent the provision of information about the precise composition. Through reduction and deduction, I can identify just 60% of the substances in Basta. Neither does the RIKILT Institute of Food Safety know the composition of herbicides. Seriously. That is the reason that I reject Liberty (and other herbicides!)

The herbicides are acetylated in the plant and then deacetylated in the intestinal tract, transformed back into the original herbicide.

It is claimed that this is fully broken down, but this is not the case. 6% is not broken down, and has a half-life of 6 minutes. The other 94% has all the time available to permeate the intestine wall.

No chronic toxicity tests have ever been done! I have reliable information about residues being found in meat, milk and eggs.

For all these reasons, I appealed to the *College van Beroep voor het Bedrijfsleven* (Administrative court of the last instance in matters of trade and industry) against the decision of the CTB to authorise the use of Liberty – until June 2003, because I believe that citizens are entitled to know about the health-damaging substances in herbicides. There is no room for confidentiality considerations here!

I am therefore the happy recipient of a large file from the attorney-general. The crazy thing is that no one has ever stuck their neck out about this before! I have submitted around 55 complaints, comments and appeals to the Council of State.

My hair stood on end when I read the Opinion of the Scientific Committee on Plants on the authorisation of maize GA 21 following an application by Spain. As far as I can see, feed tests from 1986 are being used for the assessment today. How is that possible? It shouldn't be allowed!

Yours sincerely,

L. Eijsten

http://www.gentechvrij.nl/rvs0101.html

Nutritional assessment

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Others

First a remark. You can see in the following article that Monsanto is once again promising castles in the air: "As a life sciences company, Monsanto is committed to finding solutions to the growing global needs for food and health by sharing common forms of science and technology among agriculture, nutricion and health. The company's 30,000 employees worldwide make and market high-value agricultural products, pharmaceuticals and food ingredients.

This press release contains certain forward-looking statements, including those related to the market for and sales of Roundup Ultra herbicide. These forward-looking statements are based on past experience and current expectations, but actual results may differ materially from those anticipated and there can be no guarantee that future results will be similar to those of the past. Certain factors which could cause actual results to differ materially from expected and historical result include: weather; price; new use; patent expiration; local farming practices; local economic conditions; the type of crops planted; and the availability, price and desirability of competitive, governmental, intellectual property, technological and other factors indentified in Monsanto Company's Form 10-K and Form 10-Q filings with the Securities and Exchange Commission." http://www.gentechvrij.nl/EijstenIndex.html

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3. Environmental risk assessment

Monsanto's popular GM maize is supposed to be resistant against greedy insects, thanks to a modification. However, the farmers' nightmare has come true in some fields in Iowa, in the American Midwest, with insects evolving their own resistance to the GM maize.

This development is being viewed with dismay. The fear is that farmers using these GMO crops are unwittingly generating super-bugs.

Aaron Gassmann (entomologist at Iowa State University) discovered that maize root worm in four fields in the northeast of Iowa had become resistant to the "natural" pesticide in Monsanto's GM maize. He explained that, although currently these were just isolated cases, it was unclear just how quickly the resistance would spread. But it is an early warning that agriculture will have to change. The results of the study were published by PloS one. http://www.plosone.org/article/info:doi%2F10.1371%2Fjournal.pone.0022629

Original article: http://online.wsj.com/article/SB10001424053111904009304576532742267732046.html

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4. Conclusions and recommendations

Don't give the green light for this crop,to place it on the market, it will be a disaster for the whole of Europe!

6. Labelling proposal

NONE, it should not be on the market at all. We don't want it.

Organisation: The European GMO-free Citizens
Country: The Netherlands
Type: Others...

a. Assessment:
Molecular characterisation

See 3

Comparative analysis (for compositional analysis and agronomic traits and GM phenotype)

See 3

b. Food Safety Assessment:
Toxicology

See 3

Allergenicity

See 3

Nutritional assessment

see 3

Others

see 3 and see our earlier comment.

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3. Environmental risk assessment

----- Forwarded Message ----- From: TWN Biosafety Info Sent: Tuesday, December 6, 2011 12:14 AM

Title : Studies on GMO Risk Assessment Date : 06 December 2011

Contents: THIRD WORLD NETWORK BIOSAFETY INFORMATION SERVICE Dear Friends and colleagues, RE: Studies on GMO Risk Assessment We wish to highlight two recent scientific studies which critically scrutinize the practice and approach taken by the authorities in conducting risk assessments on GMOs in the European Union. Recommendations are also put forward to improve the practice of assessing GMOs as well as to change regulations where necessary in order to require more comprehensive risk assessments to be carried out. Both studies can be downloaded for free at their respective links provided below. Third World Network 131 Jalan Macalister, 10400 Penang, Malaysia Email: twnet@po.jaring.my Website: www.biosafety-info.net and www.twnside.org.sg To subscribe to other TWN information lists: www.twnnews.net ---------- ---------- **Item1** Full document at: http://www.enveurope.com/content/23/1/33

Scrutinizing the current practice of the environmental risk assessment of GM maize applications for cultivation in the EU

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Environmental Sciences Europe 2011, 23:33 doi:10.1186/2190-4715-23-33

Abstract Purpose The prevailing controversies on the potential environmental risks of genetically modified organisms [GMOs] still fuel ongoing discussions among European Union [EU] member states, risk assessors, applicants and scientists, even several years after the commercial introduction of GMOs. The disagreements mainly derive from the current risk assessment practice of GMOs and differences in the perceived environmental risks. Against this background, the aim of this study was to scrutinize the current practice of environmental risk assessment [ERA] of several GMO applications currently pending for authorisation in the EU. Methods We analysed the data presented for three assessment categories of the ERA of genetically modified [GM] maize applications for cultivation in the European Union: the agronomic evaluations and the assessments of the effects of GM maize on target organisms and of its potential adverse effects on non-target organisms. Results Major shortcomings

causing considerable uncertainties related to the risk assessment were identified in all three categories. In addition, two principles of Directive 2001/18/EC are largely not fulfilled - the consideration of the receiving environment and the indirect effects, as mediated, e.g. by the application of the complementary herbicide in the case of herbicide-tolerant GM maize. Conclusions We conclude that the current practice of ERA does not comprehensively fulfil the scientific and legal requirements of Directive 2001/18/EC, and we propose improvements and needs for further guidance and development of standards. The recommendations address likewise applicants, risk assessors as well as decision makers. ---------- ---------- **Item 2** Full document at: http://www.enveurope.com/content/23/1/7

Systemic risks of genetically modified crops: the need for new approaches to risk assessment

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Environmental Sciences Europe 2011, 23:7 doi:10.1186/2190-4715-23-7

Abstract Purpose Since more than 25 years, public dialogues, expert consultations and scientific publications have concluded that a comprehensive assessment of the implications of genetic engineering in agriculture and food production needs to include health, environmental, social and economical aspects, but only very few legal frameworks allow to assess the two latter aspects. This article aims to explain the divergence between societal debate and biosafety legislation and presents approaches to bring both together. Main features The article reviews the development of biosafety regulations in the USA and the EU, focussing on diverging concepts applied for assessing the risks of genetically modified organisms (GMOs). Results The dominant environmental risk assessment methodology has been developed to answer basic questions to enable expedient decision making. As a first step, methodologies that take into account complex environmental and landscape aspects should be applied. Expanding the scope of risk assessment, more holistic concepts have been developed, for example the Organisation for Econonomic Co-operation and Development (OECD) concept of systemic risks which includes socio-economic aspects. International bodies as the OECD, the Convention on Biological Diversity (CBD) and the European Union (EU) have developed the Strategic Environmental Assessment (SEA) as an instrument that includes the additional aspects of risk assessment as demanded by many stakeholders. Interestingly, there had been no attempts yet to link the existing frameworks of GMO risk assessment and SEA. Conclusions It is recommended to adapt current models of SEA to assess the systemic risks of GMOs. It is also suggested to revise the EU GMO legislation to promote the inclusion of SEA elements.

..... Website: http://www.gmwatch.org Profiles: http://www.powerbase.info/index.php/GM_Watch:_Portal Twitter: http://twitter.com/GMWatch Facebook: http://www.facebook.com/pages/GMWatch/276951472985?ref=nf

4. Conclusions and recommendations

see 3

5. Others

see 3

6. Labelling proposal

see 3